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| AUTHOR: | Stephen D. Kroeger; Cathy Burton; Christopher Preston |
| TITLE: | Integrating Evidence-Based Practices ***in*** Middle ***Science*** ***Reading*** |
| SOURCE: | ***Teaching*** Exceptional Children 41 no3 6-15 Ja/F 2009 |

ABSTRACT: A study examined the effectiveness of PAL***Science****,*

an evidence-based practice that addresses

the learning needs of middle school students

who have difficulty comprehending ***science*** texts.

Findings revealed that using evidence-based practices

in an innovative way supported the teachers' goals for

***teaching*** and student learning and highlighted the significant role of increasing reading comprehension while the teachers became aware of how students were ***reading*** ***in*** a content area that at times sounded

like a foreign language.

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| **ERIC #:** | EJ908655 |
| **Title:** | The Influence of Literacy-Based Science Instruction on  Adolescents' Interest, Participation, and Achievement in Science |
| **Authors:** | [Guzzetti, Barbara J.](http://www.eric.ed.gov/ERICWebPortal/search/simpleSearch.jsp?_pageLabel=ERICSearchResult&_urlType=action&newSearch=true&ERICExtSearch_SearchType_0=au&ERICExtSearch_SearchValue_0=%22Guzzetti+Barbara+J.%22); [Bang, Eunjin](http://www.eric.ed.gov/ERICWebPortal/search/simpleSearch.jsp?_pageLabel=ERICSearchResult&_urlType=action&newSearch=true&ERICExtSearch_SearchType_0=au&ERICExtSearch_SearchValue_0=%22Bang+Eunjin%22) |
| **Source:** | Literacy Research and Instruction, v50 n1 p44-67 2011 |
| **Peer-Reviewed:** | Yes |
| **Publisher:** | Routledge. Available from: Taylor & Francis, Ltd. 325 Chestnut Street  Suite 800, Philadelphia, PA 19106. Tel: 800-354-1420;  Fax: 215-625-2940; Web site: http://www.tandf.co.uk/journals |
| **Publication Date:** | 2011-00-00 |
| **Pages:** | 24 |
| **Pub Types:** | Journal Articles; Reports - Research; Tests/Questionnaires |
| **Abstract:** | Despite calls for investigations that explore the efficacy of integrating  literacy into science instruction, few researchers have conducted this  cross-disciplinary research. Therefore, this study focused on determining the impact of a literacy-based approach to teaching science on secondary students' attitudes toward  science and their achievement and engagement in physical science.  This inquiry also focused on determining any differential effects for  girls since females are often marginalized in science instruction and  discouraged in choosing science careers. This mixed-methods study  used quantitative measures and methods to determine the efficacy  of integrating science and literacy and qualitative methods to  describe the instructional activity in three experimental teachers'  chemistry classes. Findings demonstrated the positive impact of  integrating literacy into science on students' inquiry skills and  improved attitudes toward science for girls. Appealing elements  of the instructional activities are identified and described.  Implications are provided for instruction and recommendations  are offered for future research. (Contains 1 figure.) |

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| Improving Middle School Students' Science Literacy through Reading Infusion |  |
| **Authors:** | [Fang, Zhihui](http://www.eric.ed.gov/ERICWebPortal/search/simpleSearch.jsp?_pageLabel=ERICSearchResult&_urlType=action&newSearch=true&ERICExtSearch_SearchType_0=au&ERICExtSearch_SearchValue_0=%22Fang+Zhihui%22); [Wei, Youhua](http://www.eric.ed.gov/ERICWebPortal/search/simpleSearch.jsp?_pageLabel=ERICSearchResult&_urlType=action&newSearch=true&ERICExtSearch_SearchType_0=au&ERICExtSearch_SearchValue_0=%22Wei+Youhua%22) |
| **Source:** | Journal of Educational Research, v103 n4 p262-273 2010 |
| **Peer-Reviewed:** | Yes |
| **Publisher:** | Heldref Publications. 1319 Eighteenth Street NW, Washington,  DC 20036-1802. Tel: 800-365-9753; Tel: 202-296-6267;  Fax: 202-293-6130; e-mail: [subscribe@heldref.org](mailto:subscribe@heldref.org);  Web site: http://www.heldref.org |
| **Publication Date:** | 2010-00-00 |
| **Pages:** | 12 |
| **Pub Types:** | Journal Articles; Reports - Evaluative |
| **Abstract:** | Despite recent calls for border crossing between reading  and science, few studies have examined the impact of reading  infusion in the science curriculum on students' science literacy.  In this quasi-experimental study, the authors investigated the  effects of an inquiry-based science curriculum that integrated  explicit reading strategy instruction and quality science  trade books on the development of science literacy among  middle school students. Students in 10 sixth-grade science  classes from 1 public middle school in the United States were  randomly assigned to 2 conditions: inquiry-based science only  (IS) and inquiry-based science plus reading (ISR). Results from  the analyses of covariance showed that the ISR students  significantly outperformed their IS peers on all measures  of science literacy. It was suggested that even a modest  amount of reading infusion could have a positive impact  on middle school students' science literacy. The limitations  and implications of the study were also discussed. |
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